

RESPONSE TO CLAUSE 13.02 – 135-289 AUSTIN STREET, WINCHELSEA

REF: 2018-289

13th October
2020

South Coast Bushfire Consultants

PLANNING & ENVIRONMENT ACT 1987
SURF COAST PLANNING SCHEME

This Development Plan complies with the requirements of Clause
43.04 of the Surf Coast Planning Scheme

Approval Number: PG19/0086
Date: 4/08/2021 Sheet No: 1 of 33

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South Coast Bushfire Consultants

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Qualifications / Accreditations:

- Accredited Bushfire Consultant (BPAD level 2) with the Fire Protection Association Australia (FPA) (2014)
- Preparing and assessing an application under the Bushfire Management Overlay – Planet (Department of Planning and Community Development) (2013)
- Postgraduate Certificate in Bushfire Planning and Management – The University of Melbourne (2013)
- Postgraduate Certificate in Business – The University of Notre Dame, Broome (2002)
- Bachelor of Science, Honours – The University of Melbourne (1998)
- Native Vegetation Planning Permit Applications – Planet (Department of Planning and Community Development) Training Seminar (2013)

Disclaimer

This report has been made with careful consideration and with the best information available to South Coast Bushfire Consultants at the time of writing. Before relying on information in this report, users should evaluate the accuracy, completeness and relevance of the information provided for their purposes. South Coast Bushfire Consultants do not guarantee that it is without flaw or omission of any kind and therefore disclaim all liability for any error, loss or other consequence that may arise from you relying on any information in this report.

Requirements detailed in this document do not guarantee survival of the buildings or the occupants. The client is strongly encouraged to develop and practice a bushfire survival plan.

Information and assistance including a template for a Bushfire Survival Plan is provided as part of the 'Fire Ready Kit' available through the CFA website at <http://www.cfa.vic.gov.au> or through your local CFA Regional office.

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Version Control

	Name	Date Completed	Comments
Report Version	Kylie Steel	10/8/19	Version 1
		22/8/19	Version 2
		27/8/19	Version 3
		24/9/19	Version 4
		12/05/20	Version 5
		13/10/20	Version 6
Field Assessment	Kylie Steel	8/8/19	
Report	Kylie Steel	8/8/19	
Mapping	Kylie Steel	1/8/19	Version 4
		24/9/19	Version 4
		13/10/20	Version 6

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DEFINITIONS, ABBREVIATIONS AND ACRONYMS

AS 3959-2018 – Australian Standard AS 3959-2018 Construction of buildings in bushfire-prone areas.

CFA – Country Fire Authority

Clause – A clause relates to a specific piece within the planning scheme.

Clause 44.06 – Bushfire Management Overlay

Clause 53.02 – Planning for Bushfire

Clause 13.02 – Bushfire Planning

DELWP – Department of Environment, Land, Water and Planning

BAL – Bushfire Attack Level

BPA – Bushfire Prone Area

BMO – Bushfire Management Overlay

BMS – Bushfire Management Statement

Method 1 – refers to methodology in AS 3959-2018 for determining a BAL with a number of predetermined inputs.

Method 2 – refers to methodology in AS 3959-2018 for determining a site specific BAL

Pathway 1 – refers to an application pathway in Clause 53.02 of the planning scheme.

Pathway 2 – refers to an application pathway in Clause 53.02 of the planning scheme.

Planning Practice Note – a guide for using various sections of the planning scheme prepared by DTPI

RA – Responsible Authority

SCBC – South Coast Bushfire Consultants

Total Fire Ban Day – is declared by CFA on days when fires are likely to spread rapidly and could be difficult to control.

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Response to Clause 13.02 – 135-289 Austin Street, Winchelsea

1. EXECUTIVE SUMMARY

This report has been prepared to accompany a planning permit application for a 126-lot subdivision at 135-235 Austin Street, Winchelsea. The site is within a Bushfire Prone Area (BPA) of the state and as such all development needs to demonstrate that it meets the objective of *Clause 13.02 Bushfire Planning*. The objective of *Clause 13.02* is 'to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life'.

The site is within a General Residential Zone (GRZ) and the dominant bushfire hazards are grasslands. The proposed subdivision is within a landscape at a low risk from bushfire.

The proposed development is not within the Bushfire Management Overlay (BMO).

The proposed development can mitigate the bushfire hazards and provide adequate separation from the surrounding hazards, meeting the life safety objectives detailed in Clause 13.02.

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2. SCOPE OF THE REPORT

This assessment has been prepared to demonstrate that the proposed development has regard for the surrounding bushfire hazards. The associated legislative requirements affecting the site have been identified and address.

The report considers the existing use of the site and how the proposed subdivision can demonstrate compliance with the objectives of Clause 13.02.

3. METHODOLOGY

The methodology used to prepare a holistic approach to assessing and mitigation the bushfire risk to the development includes the following:

- Identify Building and Planning controls affecting the development
- Bushfire Hazard Landscape Assessment
- Bushfire Hazard Site Assessment
- A Bushfire Attack Level (BAL) Assessment
- Response to Clause 13.02

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4. LEGISLATIVE CONTROLS AFFECTING THE DEVELOPMENT

The site is affected by planning, building and legislative controls.

4.1 Planning controls

Table 1 – Planning Clauses affecting the site

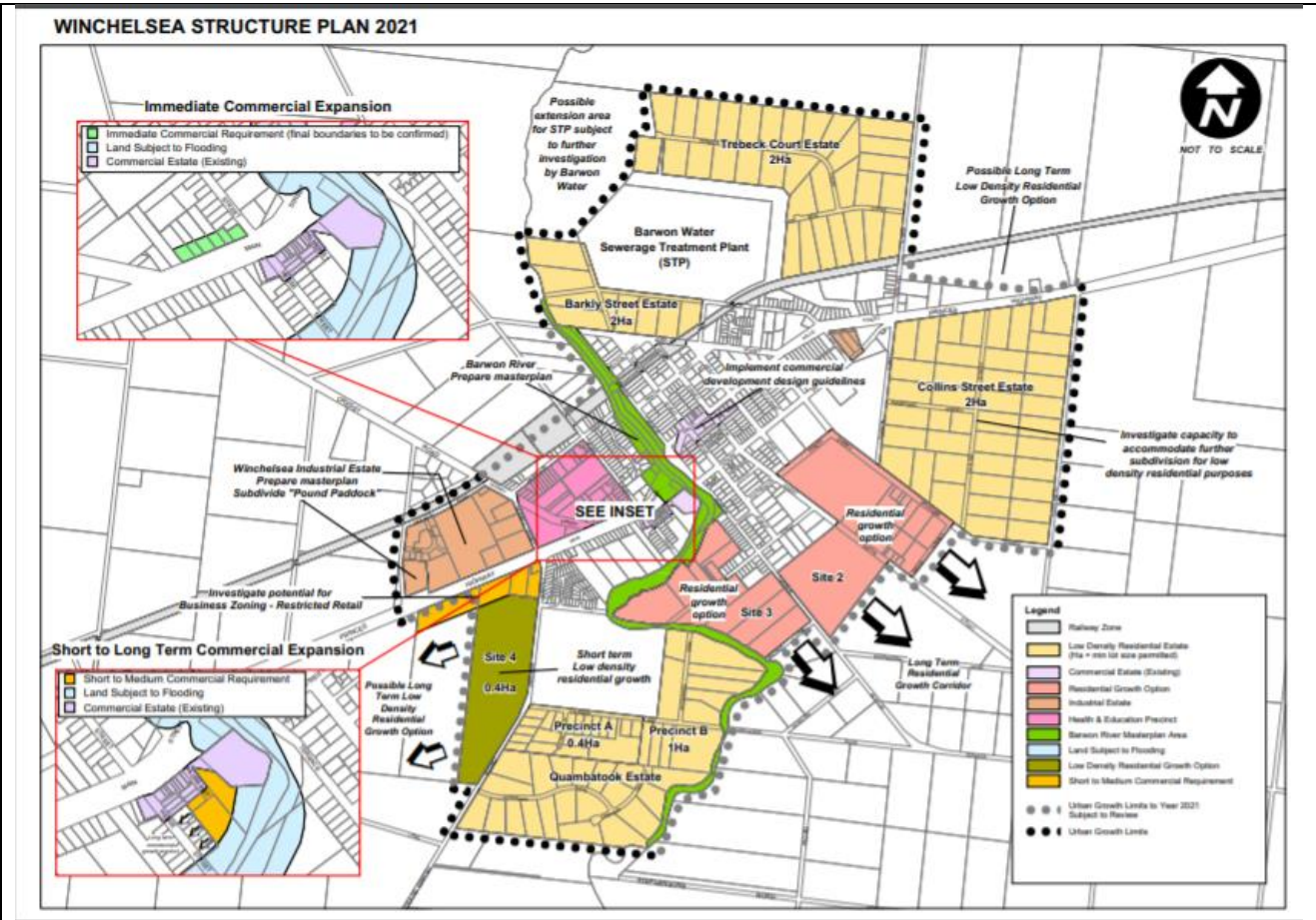
Clause Number	Name	Detail
State Planning Policy Framework		
13.02	Environmental Risks - Bushfire	<p><i>Objective - To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.</i></p> <p>This policy must be applied to all planning and decision making relating to land which is:</p> <ul style="list-style-type: none"> • <i>Within a designated bushfire prone area;</i> • <i>Subject to a Bushfire Management Overlay; or</i> • <i>Proposed to be used or developed in a way that may create a bushfire hazard.</i> <p>The subject site is within a designated Bushfire Prone Area and therefore the policy applies.</p>
Local Planning Policy Framework – Surf Coast Planning Scheme		
21.09-02	Winchelsea Strategy	<p><i>Objective: Settlement, Built Environment and Heritage</i></p> <p><i>To accommodate and manage the projected population growth and ageing demographics of Winchelsea in a manner that respects and celebrates the authentic country village atmosphere and rich cultural heritage of the town.</i></p>

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Planning Zone:		
32.08	General Residential Zone (GRZ) Schedule 1	To implement the Municipal Planning Strategy and the Planning Policy Framework. To encourage development that respects the neighbourhood character of the area. To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport. To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

Planning Overlays:		
43.04	Development Plan Overlay (DPO) Schedule 13	To implement the Municipal Planning Strategy and the Planning Policy Framework. To identify areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land. To exempt an application from notice and review if a development plan has been prepared to the satisfaction of the responsible authority. Approval Number: PG19/0086 Date: 4/08/2021 Sheet No: 8 of 33

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4.2 Building Controls

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All building work must comply with the Building Act 1993, Building Regulations 2006 and the National Construction Code (the NCC) unless specifically exempted.

The Building Act sets out the legal framework for the regulation of construction of buildings, building standards and maintenance of specific building safety features in Victoria.

The Regulations are derived from the Act and contain, among other things, the requirements relating to building permits, building inspections, occupancy permits, enforcement of the Regulations, and maintenance of buildings. The Regulations adopt the NCC as a technical reference that must be complied with and this is noted in Regulation 109.

The NCC is a performance-based document and it sets out the minimum criteria which defines how buildings must perform to meet the objectives and functional statements. The NCC calls upon the *Australian Standard AS 3959–2018 Construction of Buildings in Bushfire Prone Areas*.

A building solution will comply with the NCC if it satisfies the performance requirements. Compliance with the Performance Requirements can only be achieved by:

- a. Complying with the Deemed-to-satisfy Provisions; or
- b. Formulating an Alternative Solution which –
- c. Complies with the Performance Requirements; or
- d. Is shown to be at least equivalent to the Deemed-to-satisfy provisions; or
- e. A combination of a. and b.

Section 3.7.4 of the BCA – Acceptable Construction, Part 3.7.4 Bushfire Prone Areas calls upon AS 3959-2018, if all the criteria in Method 1 or 2 of this document are met a building is deemed to satisfy the requirements of the VCC.

The Standard AS 3959-2018 specifies the requirements for the construction of buildings in bushfire –prone areas in order to improve their resistance to bushfire attack from burning embers, radiant heat, flame contact and combinations of the three attack forms.

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5. BUSHFIRE HAZARD IDENTIFICATION AND ASSESSMENT

The landscape assessment is important to consider as it defines the context of site assessment. The Bushfire Hazard Landscape Assessment has identified risks in the surrounding landscape and has considered the assessment of bushfire hazards on the basis of:

- Landscape conditions – meaning conditions in the landscape up to 75 kilometers from a site;
- Local conditions – meaning conditions in the area within approximately 1 km of a site;
- Neighbourhood conditions – meaning conditions in the area within 400m of a site; and
- The site for the development.

5.1 Vegetation in the Surrounding Landscape

The development site is located to the south of the existing township area of Winchelsea. The site is surrounded by residential development in the form of medium and low-density residential areas.

The township of Winchelsea is surrounded by grassland to all aspects and a grassland fire is that only form of landscape bushfire that would impact the township.

The Winchelsea Public Park is located to the north of the site and although it has fragmented trees, the dominant vegetation is grassland and the overstorey foliage cover is minimal and thus the vegetation is classifiable as grassland.

The Barwon River to the west of the property and is bordered by remnant pockets of native vegetation. The vegetation along the banks of the river is narrow and would not impact on the intensity of a grassfire.

5.2 Ecological Vegetation Classes

Ecological Vegetation Classes (EVC) are the standard unit for classifying vegetation types in Victoria. EVCs are described through a combination of floristic, lifeforms and ecological characteristics, and through an inferred fidelity to particular environmental attributes. The EVC benchmarks contain a subset of “typical” but not comprehensive list of species for each EVC in a bioregion.

To assist with the assessment of the landscape risk a map of the surrounding EVCs has been produced from the DELWP Nature kit website. This map indicates the vegetation within the broader landscape and from this we can determine likely landscape fire attributes.

The maps do not include plantation forests, and these must be assessed separately.

All vegetation within the assessment zone is with the Victorian Volcanic Plain Bio-region. The EVCs from the map below include the following:

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Table 2 – Dominant EVCs present in the surrounding landscape.

EVC Number & Name	Description	Dominant Species	% Tree Canopy Cover
EVC 56: Floodplain Riparian Woodland (Blue on map)	An open eucalypt woodland to 20 m tall over a medium to tall shrub layer with a ground layer consisting of amphibious and aquatic herbs and sedges. Occurs along the banks and floodplains of the larger meandering rivers and major creeks, often in conjunction with one or more floodplain wetland communities. Elevation and rainfall are relatively low and soils are fertile alluviums subject to periodic flooding and inundation.	Eucalyptus camaldulensis - River Red-gum Eucalyptus ovata - Swamp Gum	20%
EVC 55_61: Plains Grassy Woodland (Light pink on map)	An open, eucalypt woodland to 15 m tall. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer. This variant occupies areas receiving approximately 500 – 700 mm annual rainfall.	Eucalyptus camaldulensis - River Red Gum	10%

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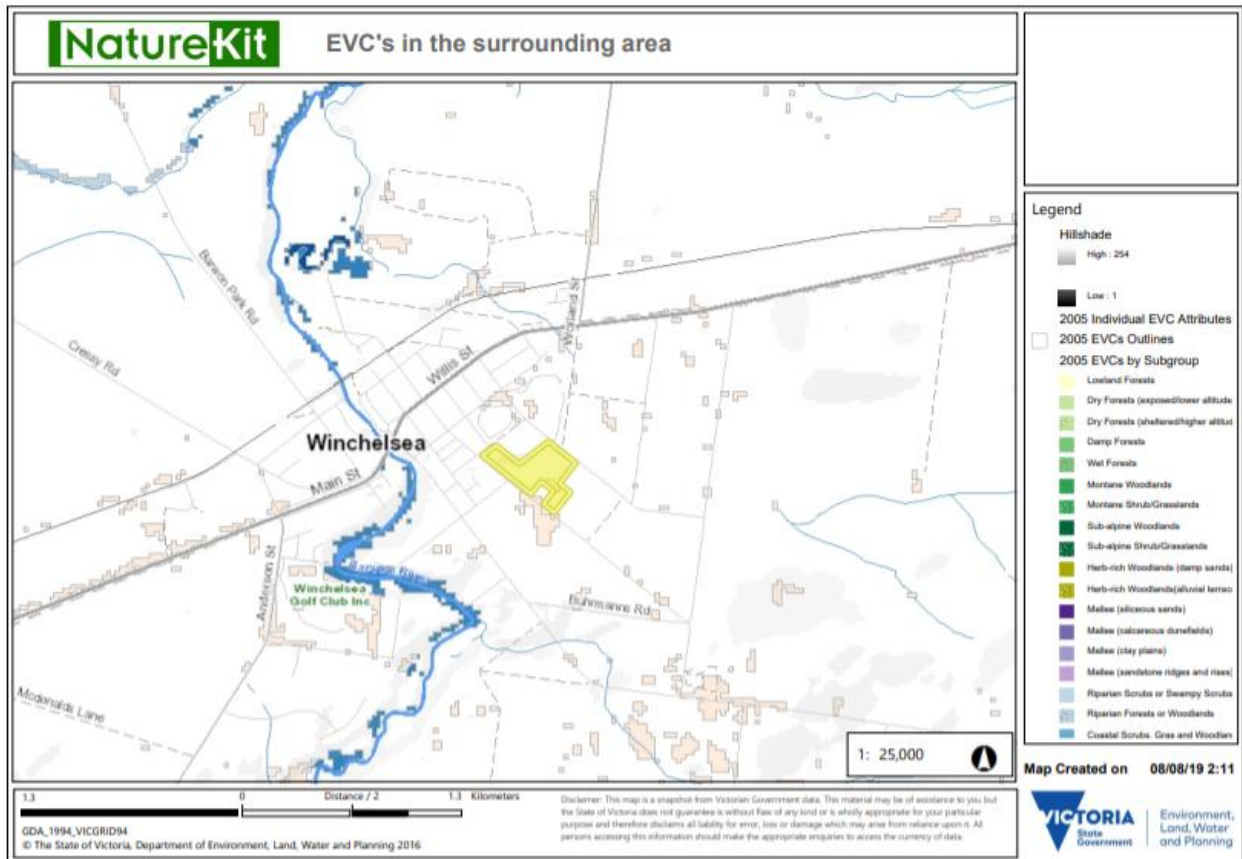
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The assessment of EVC's within the surrounding landscape confirms there are no large areas of unmanaged forest or woodland vegetation within the surrounding landscape.

The EVC mapping demonstrates small pockets Plains Grassy Woodlands as is demonstrated in Map 1 below, these packets are generally less than 1ha in area and do not constitute a significant bushfire hazard.

Map 1 – Location of EVCs within the surrounding landscape (Nature Kit, DELWP, 2019).



5.3 Ember storm

Ember storm is not possible within this landscape setting due to limited forest and woodland vegetation and the lack of topographical features within the landscape.

5.4 Wind Strength

Bushfires create extreme wind as they move across the landscape. Gullies and mountainous terrain can increase the wind effects and cause a significant risk to the built environment. The wind effects at this location are not influenced by any significant landscape formations that will increase the wind effects.

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5.5 Potential Fire Runs

The landscape surrounding the proposed development would enable short fire runs through grassland to the south, east and west.

It is likely that a grassland fire in this location would be able to be contained due to the high network of roads.

A grassfire impacting from the north is unlikely due to the low-density development between the hazard and the proposed development.

Extreme bushfire weather is not consistent with an easterly wind direction and although there are grasslands to the east there are also large numbers of small rural properties and hobby farms with managed grassland.

5.6 Mitigating Features within the surrounding landscape

There are a number of features within the surrounding landscape that would aid in suppression of a landscape grassfire. These including the following:

- Princess Highway to the north.
- Austin Street along the south west boundary.
- Witcombe Street along the north east boundary
- Barwon River to the west.

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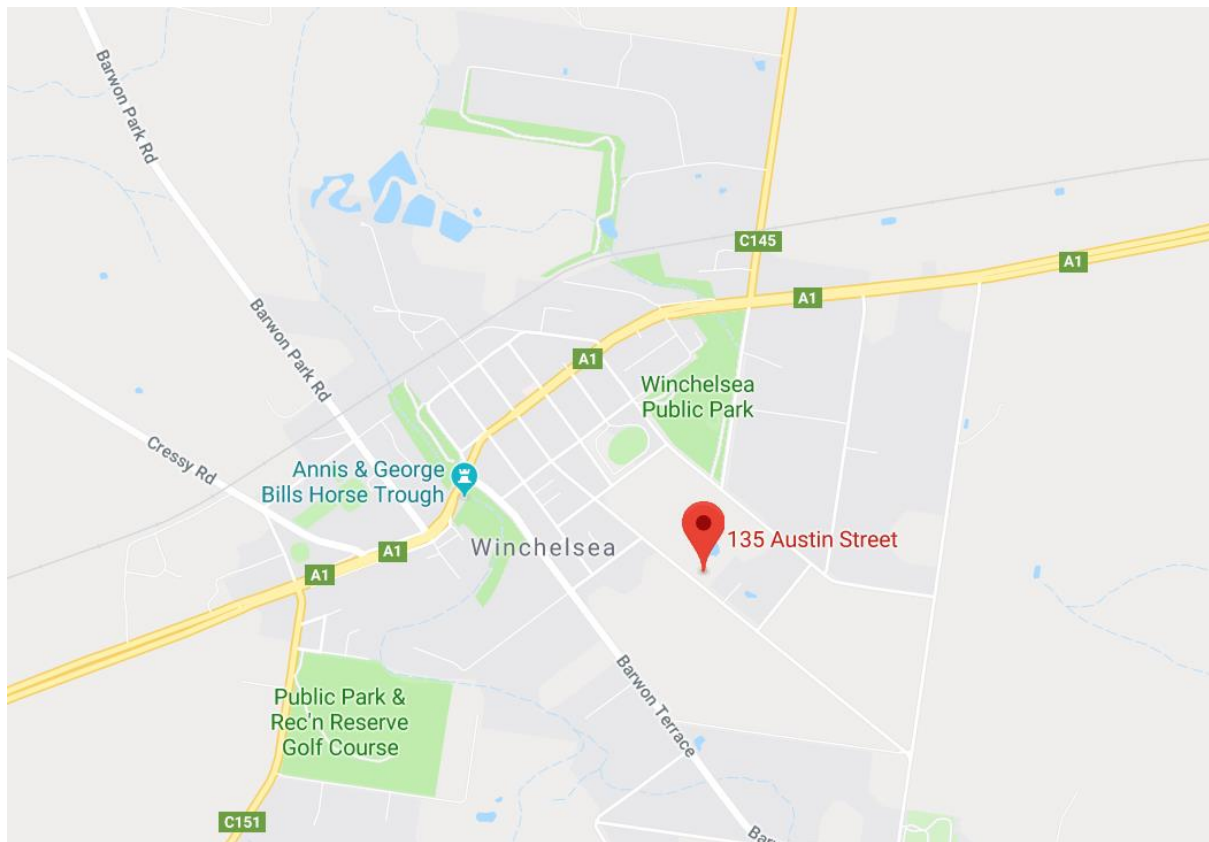
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5.7 Surrounding Road Network

Map 2 – Surrounding Road Network



The development site is located on Austin Street which is a wide sealed road.

In the event of an emergency travel to the east towards Geelong is available on the Princess Highway.

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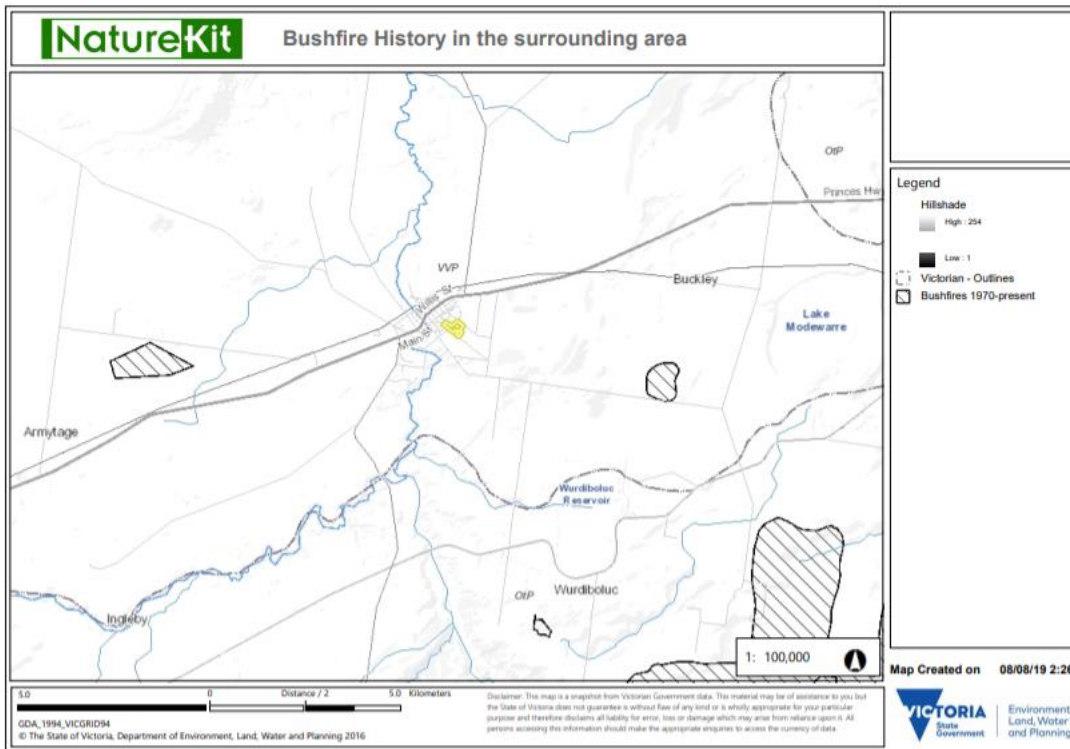
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5.8 Bushfire History of the Area

The Barwon South West Regional Strategic Fire Management Plan: Environmental Scan lists bushfire events in the Otway Ranges. The map below (Map 3) sourced from NatureKit shows bushfires within the surrounding landscape since 1970.

The map identifies small grassland fires within surrounding landscape.

Map 3 – Bushfire History of the surrounding area (Nature Kit, DELWP, 2019).



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5.9 Potential Fire Behavior

Bushfire behavior is influenced by three key factors; climate, topography and fuel availability. The landscape surrounding the site is dominated by grassland fuel loads and the topography of the landscape is undulating.

Table 3 – Bushfire attack mechanisms and appropriate inputs for models.

	Standard Assessment Inputs and Considerations	Risk Based Assessment Inputs and Considerations
Consideration of all bushfire mechanisms:	<p>The AS 3959-2018 methodology assumes that distance to classification determines the radiant heat exposure and associated BAL. The BAL determines the construction standard. The higher the BAL the greater a developments resilience to bushfire.</p> <p>AS 3959-2018 does not have any regard for convective heat or bushfire induced winds.</p>	<p>Consider and assess each bushfire attack mechanism independently considering the unique specifics of the site. The bushfire attack mechanisms to be assessed include:</p> <ul style="list-style-type: none"> • Radiant Heat Exposure • Convective Heat Exposure • Ember Attack • Bushfire Induced Winds.
Analysis of the bushfire model inputs:	<p>Forest Fire Danger Index (FFDI)</p> <p>The FFDI is used nationally as a measure for fire weather. It uses the drought factor (seasonal dryness), relative humidity, temperature and wind speed to establish the fire weather severity.</p> <p>The BMO and AS 3959-2018 assumes an FFDI of 100.</p>	<p>The assessment has assumed an FFDI of 100 as it is the state based assumption.</p>
	<p>Flame Temperature</p> <p>The BMO and AS 3959-2018 assumes a flame temperature of 1090K.</p>	<p>Use the state-based assumption.</p>
	<p>Fuel Loads</p> <p>In AS 3959-2018 assumes fuel loads within grasslands.</p>	<p>The assumed fuel loads within AS 3959-2018 for grassland are deemed appropriate.</p>

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Table 4 – Bushfire Attack Mechanisms

Attack Mechanism	Sites Risk and Response
Radiant Heat Exposure	<p>Low exposure to radiant heat as the site is able to meet a BAL of Low due to the low threat vegetation within the surrounding landscape.</p> <p>All construction will be in accordance with a BAL of 12.5 to mitigate the impacts of low radiant heat exposures.</p>
Convective Heat Exposure	The site will not be affected by convective heat as the topography surrounding the site is largely flat.
Ember Attack	Ember attack will be limited due to the lack of eucalypt species within the surrounding landscape.
Bushfire Induced Winds	Bushfire induced winds are not expected to be extreme in this location due to the benign topography of the surrounding landscape.

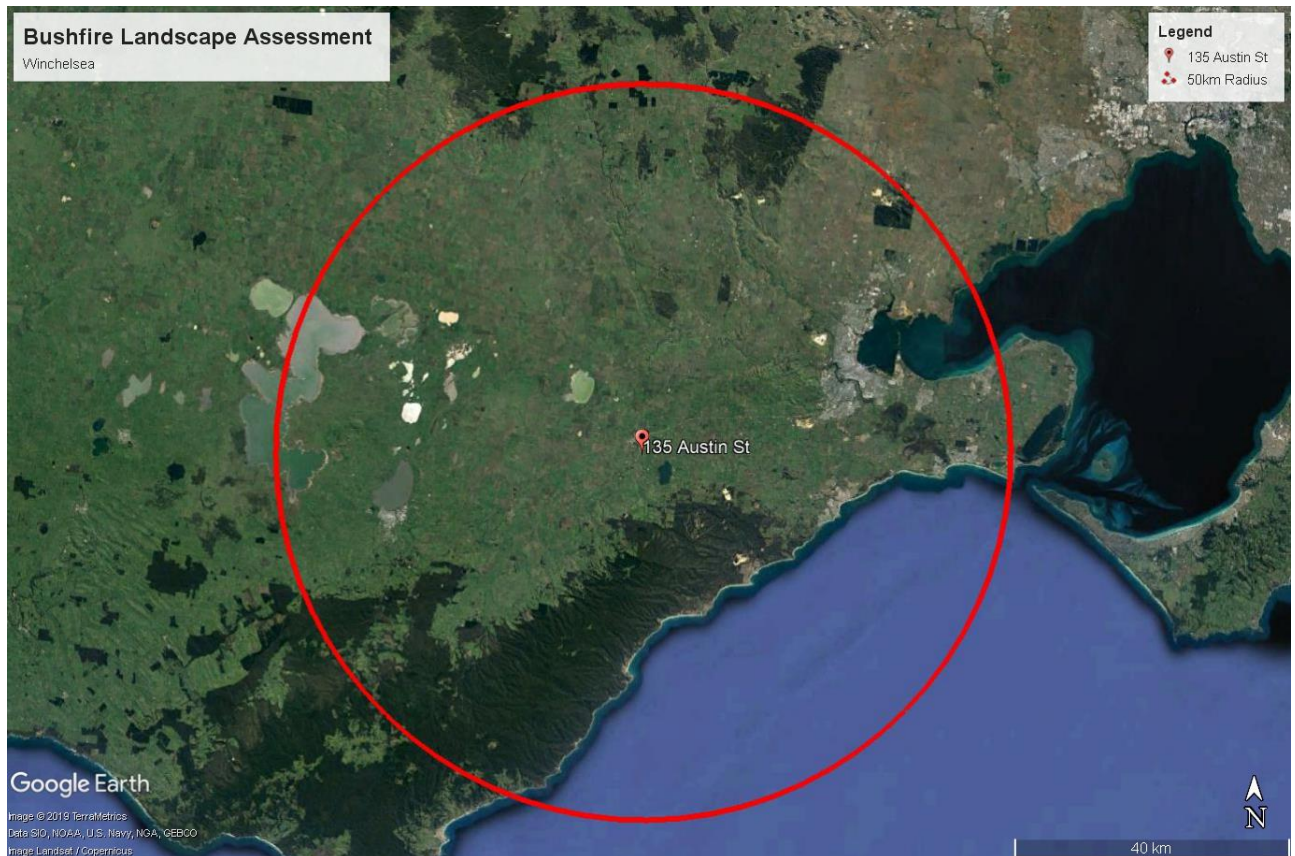
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Map 4 – Bushfire Hazard Landscape Assessment



- The surrounding landscape shows the dominant hazard in the broader landscape is grassland.
- The Great Otway National Park is located approximately 10km to the south of the site.
- The city of Geelong can be seen to the east of the site on the edge of Corio Bay.

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Map 5 - Bushfire Hazard Site Assessment – 1km Assessment Zone (13/10/20 V6)



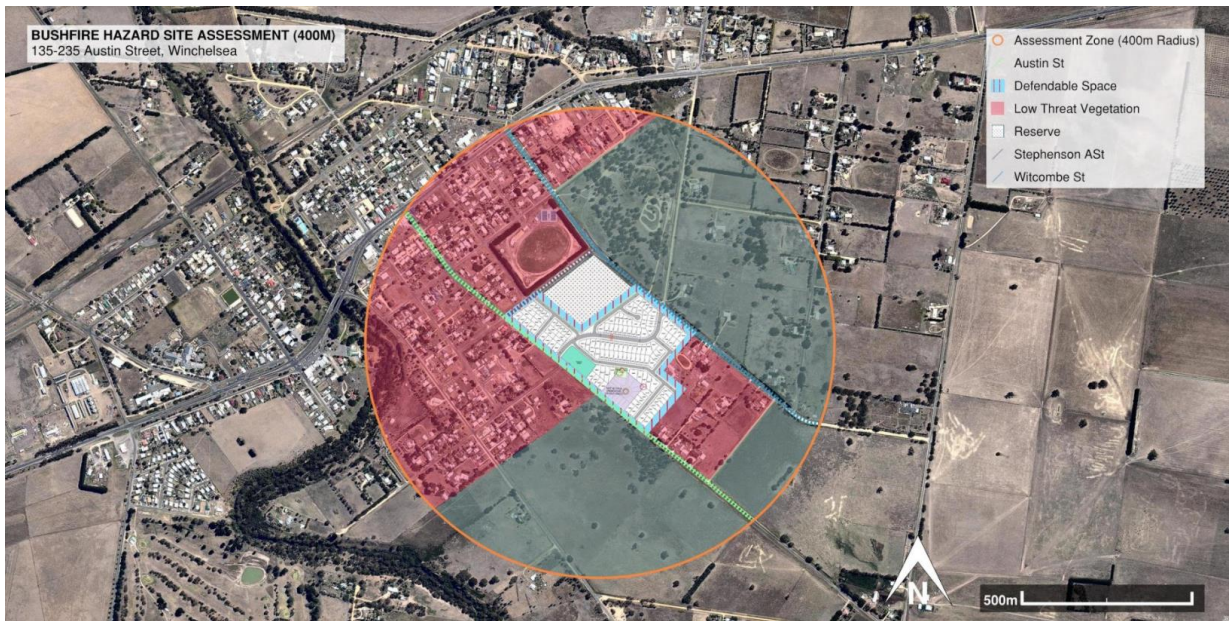
- The dominant vegetation within 1km of the site is farmland that supports grassland.
- The small township of Winchelsea is central with the Princess Freeway running through the town.
- The Barwon River can be seen to the west of the site.
- The 1km radius shows that the localised bushfire hazards surrounding the site do not present has a significant bushfire hazard and construction to a BAL of 12.5 will adequately manage these hazards.

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Map 6 – Bushfire Hazard Site Assessment – 400m Assessment Zone (V6 13/10/20)



- The 400m radius shows the vegetation within the landscape likely to have an impact on the proposed dwelling.
- South of the site the vegetation is dominated by grassland.
- There is a small pocket of remnant eucalypts to the south that is less than 1ha in size with a managed understorey and scattered trees. The woodland is approximately 1ha in area and would not contribute to a sizeable bushfire able to produce radiant heat levels in accordance with AS 3959-2018.
- Vegetation surrounding the sports precinct to the north is managed to a low threat condition.
- There is a large parcel of land in the northern corner of the site that will be managed by the council for the purposes of an additional sports precinct. It is reasonable to assume this will be managed to a low threat condition.

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6. BUSHFIRE HAZARD SITE ASSESSMENT

The Bushfire Hazard Site Assessment includes a plan that describes the bushfire hazard within 150 meters of proposed development. The description of the hazard is prepared in accordance with AS 3959-2018 Construction of buildings in bushfire prone areas (Standards Australia) excluding paragraph (a) of section 2.2.3.2 (Vegetation Exclusions).

6.1 Site Details

Address:	135-235 Austin Street, Winchelsea 3241
Lot & Plan Number:	Lot A PS822884
Municipality:	Surf Coast
BMO Schedule:	N/A
Existing Dwellings:	-
Private Bushfire Shelter:	N/A
Application Pathway:	N/A
Directory Reference:	VicRoads 525 P3

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6.2 Vegetation

The vegetation within the 150 metre assessment area was classified according to method 1 in AS 3959-2018 for the purposes of this preliminary assessment.

The method 1 assessment in AS 3959-2018 uses a generalised description of vegetation based on the AUSLIG (Australian Natural Resources Atlas: No.7 Native Vegetation) classification system. According to this method, vegetation can be classified into seven categories. Each category indicates a particular type of fire behavior and these categories or classifications are then used to determine bushfire intensity.

Table 6 – Vegetation Assessment

Grassland	<p><u>AS 3959-2018 Definition</u></p> <p><i>All forms, including situations with shrubs and trees, if the overstorey foliage cover is less than 10%.</i></p> <p><u>Site Description</u></p> <p>The surrounding landscape is dominated by grazed grasslands. The grasslands have a mixed use including grazing and cropping. North east and south are smaller hobby farms and the grassland is fragmented.</p> <p>Figure 1 – Grassland to the east.</p> 
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Figure 2 – Grassland in the Winchelsea Public Park to the north east.



Figure 3 – Grassland to the south.



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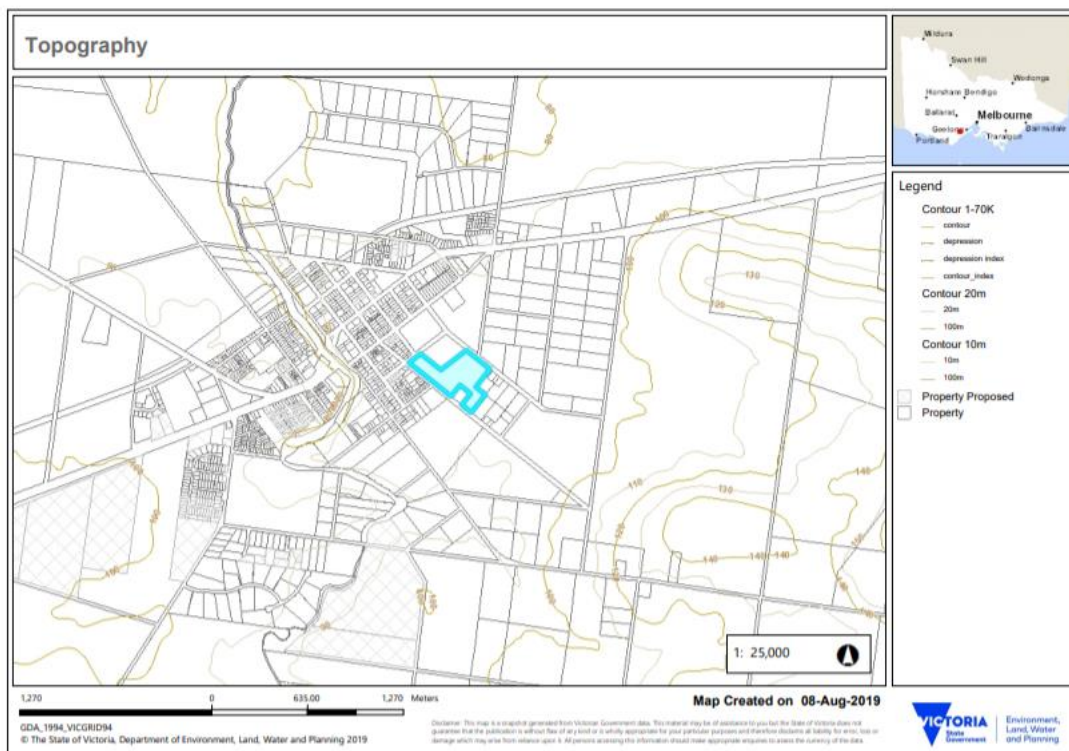
6.3 Topography

Topography of the land surrounding a site is particularly important as the topography influences the rate of spread and intensity of a fire. Fire burns faster uphill, as the slope increases so does the speed of the fire and its intensity. As a general rule for every increase 10° up a slope, the fire will double its speed and conversely down a slope. Fires tend to move more slowly as the slope decreases.

The topography of the surrounding landscape is largely flat with small depressions into dams and shallow drainage lines. The surrounding topography would not intensify a landscape bushfire.

Grassland fires are predominantly influenced by wind speed and the cured (dryness) nature of the grassland rather than topography.

Map 7 – Topography of the site.



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6.4 Bushfire Attack Level (BAL) for the proposed developments

The bushfire attack level (BAL) is a means of measuring the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kilowatts per meter squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire.

The BAL for this site has been calculated to assess the radiant heat exposure to the site. The BAL inputs include a 'Forest Fire Danger Index' (FFDI) of 100 and a Flame Temperature of 1090K. These parameters are in accordance with the risk parameters set in Clause 53.02.

Table 7 – Summary of BAL assessment for proposed Subdivision

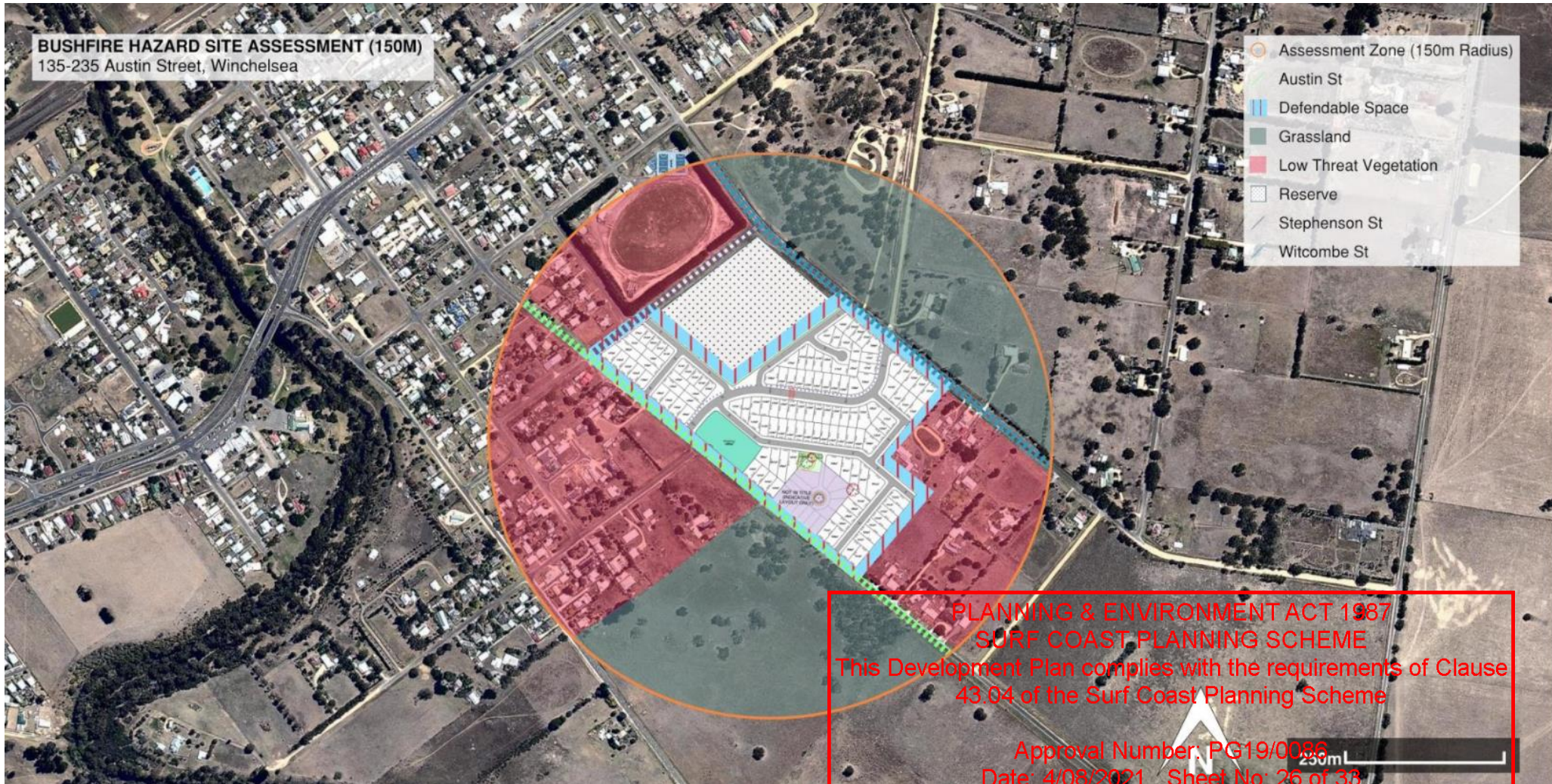
Orientation	Highest threat vegetation	Slope under classifiable vegetation	Defendable Space	Bushfire Attack Level (BAL)
North	Grassland	Flat	19m	12.5
East	Grassland	Flat	19m	12.5
South	Grassland	Flat	19m	12.5
West	Grassland	Flat	19m	12.5

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Map 8 – Bushfire Hazard Site Assessment – 150m Assessment Zone (13/10/20 V6)



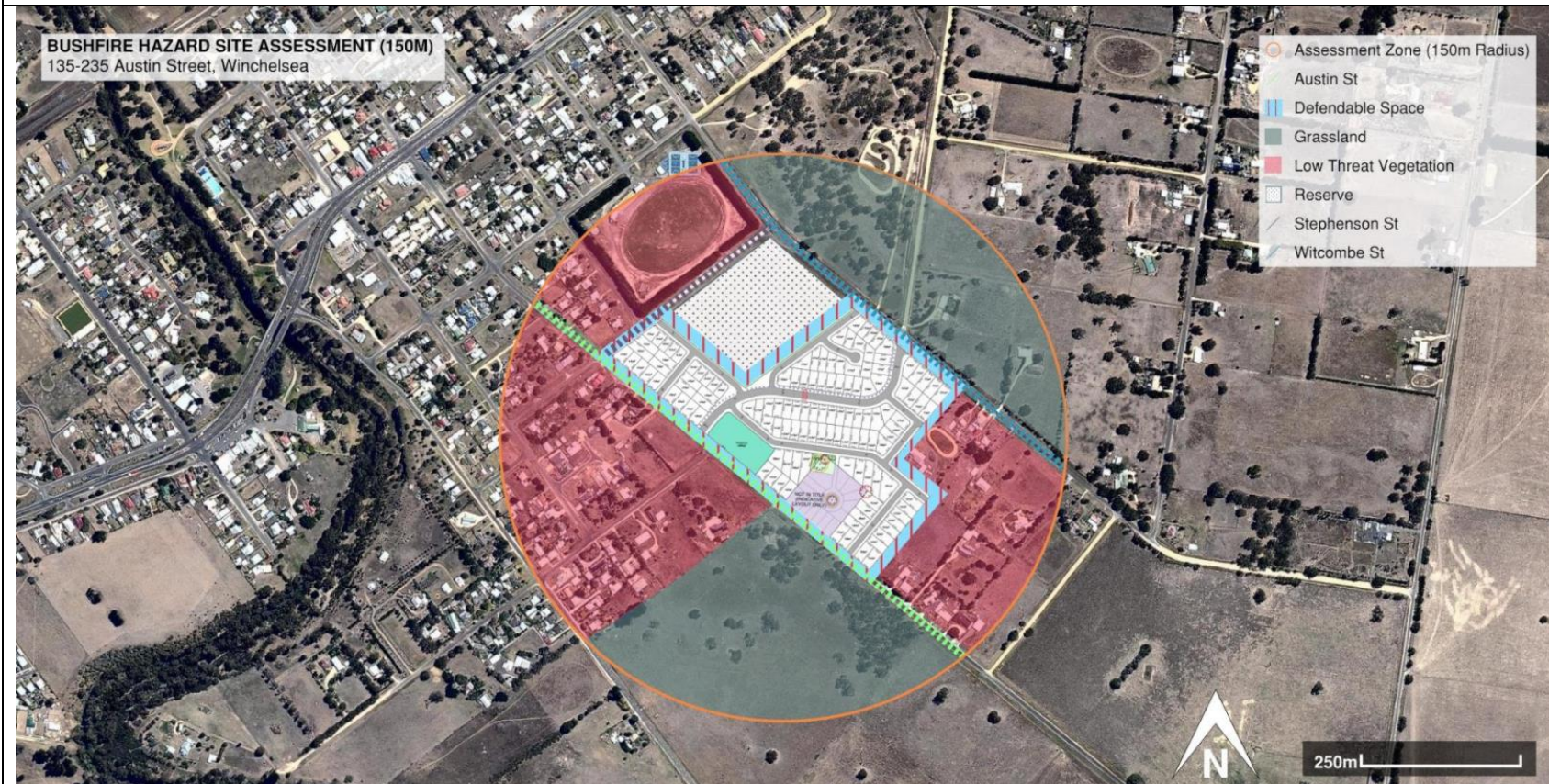
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7. BUSHFIRE MANAGEMENT PLAN

Bushfire Management Plan – 135-235 Austin Street, Winchelsea

Prepared By – SCB Consultants 13th October 2020 – (12/05/20)



Bushfire Mitigation Measures

Construction – All construction works within the development will be in accordance with a BAL of 12.5 from AS 3959-2018.

Defendable Space, Reserves and Open Space (Roadside planting, planting around retention basins)

All landscaping within the boundary of the site will be managed as per Defendable Space Vegetation Management Conditions.

Defendable Space Vegetation Management Conditions include:

- An area of defendable space for the designated BAL around the proposed building / or to the property boundary where vegetation (and other flammable materials) will be modified and managed in accordance with the following requirements:
- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 meters of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 cm in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- Tree canopies must be separated by at least 5 metres.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

Hydrants

The subdivision will provide a hydrant system in accordance with the CFA requirements.

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8. RESPONSE TO CLAUSE 13.02 – ENVIRONMENTAL RISK – BUSHFIRE

8.1 Policy Application

Clause 13.02 must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is:

- Within a designated bushfire prone area,
- Subject to a Bushfire Management Overlay, or
- Proposed to be used or developed in a way that may create a bushfire hazard.

8.2 Objective

To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.

8.3 Strategies

8.3.1 Protection of Human Life

Give priority to the protection of human life by:

Strategy	Consideration
<i>Prioritising the protection of human life over all other policy considerations.</i>	There are no conflicting policy considerations.
<i>Directing population growth and development to low risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.</i>	The proposed subdivision is within a landscape that is considered to be at a low landscape risk to bushfire: The proposed subdivision can adequately mitigate the surrounding hazards to protect human life.
<i>Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision making at all stages of the planning process.</i>	The bushfire risk of the proposed site is being considered at the planning permit stage as the existing zoning (General Residential Zone) enables the intended use.

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8.3.2 Bushfire Hazard Identification and Assessment

The bushfire hazard identification and assessment has been detailed in Section 5 – Bushfire Hazard Landscape Assessment and Section 6 – Bushfire Hazard Site Assessment of this document.

Strategy	Consideration
<p><i>Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard</i></p>	<p>The best available science is used as the basis for this report. Sections 5 and 6 of this report detail the risk posed to the proposal from the surrounding hazards.</p>
<p><i>Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the Building Act 1993 or regulations made under that Act</i></p>	<p>The best available bushfire hazard information is used as the basis for this report.</p>
<p><i>Applying the Bushfire Management Overlay in planning schemes to areas where the extent of vegetation can create an extreme bushfire hazard</i></p>	<p>The BMO has not been applied to this site as there are no large areas of unmanaged vegetation with high fuel loads within the surrounding landscape.</p>
<p><i>Considering and assessing the bushfire hazard on the basis of:</i></p> <ul style="list-style-type: none"> - Landscape conditions – meaning conditions in the landscape within 20 km (and potentially up to 75km) of a site. - Local conditions – meaning conditions in the area within approximately 1km of a site. - Neighbourhood conditions – meaning conditions in the area within 400m of a site. - The site for the development. 	<p>The landscape and local conditions have been assessed in section 5 and 6 of this document.</p> <p>Section 5 assesses the bushfire risk to the proposed development from the vegetation within the surrounding landscape and considers the possible bushfire scenarios. The scenarios consider the broader landscape (up to 75km) and the local conditions included 1km and 400m from the site.</p> <p>The site-based risk (150m from the proposed development) is assessed in section 6 of this document.</p>
<p><i>Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.</i></p>	<p>The CFA has not been consulted as the landscape risk to the proposed development is considered to be low.</p>
<p><i>Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures.</i></p>	<p>This report incorporates assessment of bushfire risk and recommendations for bushfire protection measures. The bushfire protection measures recommended are detailed in section 7-</p>

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	The Bushfire Management Plan of this document.
<i>Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented.</i>	This report demonstrates satisfactory compliance with policy and bushfire measures.

8.3.3 Settlement Planning

Plan to strengthen the resilience of settlements and communities and prioritise protection of human life by:

<i>Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metre under AS 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2018).</i>	The settlement is an extension of the existing settlement boundary and as such is zoned General Residential Zone. The location is considered to be low risk and the grassland hazard can be managed to ensure radiant heat exposures less than 12.5kW/m ² . The development will not be exposed to radiant heat levels in excess of 12.5kW/m ² .
<i>Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) where human life can be better protected from the effects of bushfire.</i>	The internal areas of the subdivision will be considered to be a BAL Low as they will be greater than 50m from the surrounding grassland hazard.
<i>Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development.</i>	The proposed subdivision does not propose to increase the risk to future land use or development.
<i>Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection Measures and where possible reducing bushfire risk overall.</i>	The subdivision is located in a landscape considered to be at a low threat from bushfire. The surrounding hazards are grasslands and can be managed adequately through vegetation management and BAL construction standards.
<i>Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behavior it will produce at a landscape, settlement, local, neighbourhood and site scale,</i>	The likely bushfire behavior has been discussed in detail in the document and has been considered at the landscape, local, neighbourhood and site scale.

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<i>including the potential for neighbourhood-scale destruction.</i>	
<i>Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis.</i>	Alternative locations have not been considered. The proposed location is considered to be at a low threat to bushfire and it is not deemed necessary.
<i>Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL 12.5 rating under AS 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2018).</i>	The proposed development will not be exposed to a radiant heat loads greater than a BAL 12.5 from AS 3959-2018.

8.3.4 Areas of Biodiversity Conservation Value

<i>Ensure settlement growth and development approvals can implement bushfire protection measures without unacceptable biodiversity impacts by discouraging settlement growth and development in bushfire affected areas that are important areas of biodiversity.</i>	The site is currently an open grassland paddock and there are no unacceptable biodiversity impacts associated with the proposed development.
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8.3.5 Use and Development Control in a Bushfire Prone Area

In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for the following uses and development:

- Subdivisions of more than 10 lots.
- Accommodation.
- Child care centre.
- Education centre.
- Emergency services facility.
- Hospital.
- Indoor recreation facility.
- Major sports and recreation facility.
- Place of assembly.
- Any application for development that will result in people congregating in large numbers.

When assessing a planning permit application for the above uses and development:

Consider the risk of bushfire to people, property and community infrastructure.	The risk has been considered and was found to be low.
Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk.	This document proposes a number of bushfire mitigation measures to address the identified bushfire risk including: <ul style="list-style-type: none"> 1. The management of an area of defensible space. 2. Construction to a BAL of 12.5.
Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts.	There are no unacceptable biodiversity impacts associated with the development.

8.4 Policy Guidelines

Consider as relevant:

- Any applicable approved state, regional and municipal fire prevention plan.

8.5 Policy Documents

Consider as relevant:

- AS 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2018).
- Building in bushfire-prone areas – CSIRO and Standards Australia (SAA HB36-1993, 1993)
- A bushfire prone area map prepared under the Building Act 1993 or regulations made under the Act.

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